## AMENDMENTS TO THE CLAIMS

1. **(Currently amended)** A warm control rolling method, being a rolling method of manufacturing steel mainly composed of fine ferrite particle texture with average ferrite grain size of 3 μm or less, which comprises,

~~in the rolling process of one pass or more of rolling~~ rolling the steel, in one or more passes, in condition where the rolling condition parameter expressed in formula (1)

$$Z = \log\left[\frac{\varepsilon}{t}\exp\left(\frac{Q}{8.31\,(T+273)}\right)\right] \qquad (1)$$

ε: strain

t: duration from start till end of rolling (s)

T: rolling temperature (°C, or average of rolling temperature of each pass in the case of multipass rolling)

Q: 254,000 if mother phase of texture just before rolling is ferrite, bainite, martensite, or pearlite; 300,000 if mother phase is ~~austenite.~~ austenite,

is 11 or more (in the case the texture just before rolling is ferrite, bainite, martensite, or pearlite, that is, Fe crystal structure is bcc) or 20 or more (in the case the texture just before rolling is austenite, that is, Fe crystal structure is fcc), and the rolling temperature range is ~~a temperature zone of~~ 350 °C to 800 °C,

rolling under condition that the material temperature upon start of rolling of each rolling ~~process~~ pass does not exceed the ~~maximun~~maximum temperature of 800 °C, and the material temperature during rolling and right after final rolling (within 1 second) is not 350 °C or lower, and,

rolling so that, in each rolling ~~process~~ pass, temperature $T_{x\text{-}out}$ right after rolling (within 1 second) is not higher than temperature that is higher than rolling entry temperature $T_{x\text{-}in}$ by 100 °C and the material temperature right after rolling (within 1 second) is not lower than temperature that is lower than the temperature right before rolling by 100°C.

2. **(Currently amended)** The warm control rolling method of claim 1, ~~being characterized in rolling so that~~ wherein the temperature $T_{x\text{-}out}$ right after rolling in each rolling ~~process~~ pass is not higher than temperature that is higher than the rolling entry temperature $T_{x\text{-}in}$ by 50°C.

3. **(Currently amended)** The warm control rolling method of claim 1, ~~being characterized in rolling~~comprising rolling two or more passes consecutively in rolling temperature range of 350°C to 800°C, wherein the material temperature right after two passes is not higher than temperature that is higher than the material temperature upon start of rolling by 100°C, and not lower than temperature that is lower than the material temperature upon start of rolling by 100°C.

4. **(Currently amended)** The warm control rolling method of claim 3, ~~being characterized in rolling so that~~ wherein the material temperature right after two passes is not higher than temperature that is higher than the material temperature upon start of rolling by 50°C.

5. **(Currently amended)** The warm control rolling method of claim 1, ~~being characterized in rolling in~~wherein the rolling temperature range ~~of~~ is 400°C to 500°C.

6. **(Currently amended)** The warm control rolling method of claim 1, ~~where in~~ wherein Z is 12 or more and, ~~being characterized in~~ and the method is manufacturing steel ~~with~~ mainly composed of texture with average ferrite grain size of 1 μm or less.

7. **(Currently amended)** The warm control rolling method of claim 1, further comprising, ~~being characterized~~ in starting rolling, ~~,~~ in consecutive multipass rolling, ~~by~~ waiting until the rolling entry temperature $T_{x+1\text{-}in}$ of X+1-th pass becomes $Ts+20 \geq T_{x+1\text{-}in}$ when the rolling temperature $T_{x\text{-}out}$ right after X-th pass is higher than ~~the rolling set~~ chosen rolling temperature Ts.

8. **(Currently amended)** The warm control rolling method of claim 1, ~~being characterized in~~further comprising measuring the processing heat generation $T_{xH}$ at X-th pass in

multipass rolling beforehand, and defining the rolling entry temperature $T_{x\text{-}in}$ in the relation of $T_{xs} \geq T_{x\text{-}in} \geq T_{xs} - T_{xH}$, ~~supposing~~ where $T_{xs}$ ~~to be~~ is a chosen rolling ~~set~~ temperature.

9. **(Currently amended)** The warm control rolling method of claim 1, wherein ~~the~~ a total reduction area in continuous rolling is 50% or more.

10. **(Currently amended)** The warm control rolling method of claim 1, wherein ~~the~~ a plastic strain, or ~~the~~ a strain converted into true strain from ~~the~~ a reduction of area is 1.5 or more.

11. **(Currently amended)** The warm control rolling method of claim 1, ~~being characterized in~~ further comprising introducing the strain by multidirectional processing.

12. **(Currently amended)** The warm control rolling method of claim 1, ~~being characterized in~~ further comprising controlling the temperature range before and after rolling by setting ~~the~~ a rolling speed and ~~the~~ a draft of each pass.

13. **(Previously presented)** The warm control rolling method of claim 1, wherein the continuous rolling further comprises a step of reheating in the midst of rolling for compensating for temperature drop of material, and a step of cooling in the midst of rolling for suppressing temperature rise of material.

14. **(Currently amended)** The warm control rolling method of claim 2, ~~being characterized in rolling in~~wherein the rolling temperature range ~~of~~ is 400°C to 500°C.

15. **(Currently amended)** The warm control rolling method of claim 3, ~~being characterized in rolling in~~ wherein the rolling temperature range ~~of~~ is 400°C to 500°C.

16. **(Currently amended)** The warm control rolling method of claim 4, ~~being characterized in rolling in~~ wherein the rolling temperature range ~~of~~ is 400°C to 500°C.

17. **(Currently amended)** The warm control rolling method of claim 2, ~~where in~~wherein Z is 12 or more and, ~~being characterized in~~ the method is manufacturing steel ~~with~~ mainly composed of texture with average ferrite grain size of 1 μm or less.

18. **(Currently amended)** The warm control rolling method of claim 3, ~~where in~~ wherein Z is 12 or more and, ~~being characterized in~~ the method is manufacturing steel ~~with~~ mainly composed of texture with average ferrite grain size of 1 μm or less.

19. **(Currently amended)** The warm control rolling method of claim 4, ~~where in~~ wherein Z is 12 or more and, the method is ~~being characterized in~~ manufacturing steel ~~with~~ mainly composed of texture with average ferrite grain size of 1 μm or less.

20. **(Currently amended)** The warm control rolling method of claim 5, ~~where in~~ wherein Z is 12 or more and, ~~being characterized in~~ the method is manufacturing steel ~~with~~ mainly composed of texture with average ferrite grain size of 1 μm or less.